

Gender Identity Disorder in Children and Adolescents

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Gender identity disorder (GID) has increasingly garnered media attention over the past several years: *Ma Vie en Rose* ("My Life in Pink," 1997), a sympathetic but realistic story about the tribulations and triumphs of a young transgender child, and "Boys Don't Cry" (1999), based on a true story in which a girl passing as a boy meets a tragic end, focused on this subject. News articles regarding this topic have appeared in *Time*,¹ the *New York Times*,² and *Newsweek*³; ABC's *20/20*⁴ has featured several transgendered children and their families that can be watched on *YouTube*. The *Atlantic* ran a piece on transgender children,⁵ and on May 7-8, 2008 in a two-part series, National Public Radio⁶ also explored the complex issue of the various therapeutic approaches to GID, including the controversial topic of puberty-delaying therapy for preteens struggling with GID. As a result of this increasing media coverage and research indicating that cross-gender interests and behavior are not rare (see below), families who have concerns about a child's gender identity development are increasingly likely to bring their child to the attention of the pediatrician or others taking care of children.

Pediatricians may be the first to be called on when parents have concerns about their child's atypical gender behaviors. These are often not the chief complaint for the encounter but are brought up toward the end of an office visit, or the so-called "out-the-door" question.⁷ Alternatively the parent may wait to see if

the caretaker notices and/or is concerned. Issues regarding sexuality and gender are complex and often difficult to tackle due to the emotionally charged nature of the topic, the provider's own discomfort, or the lack of experience and teaching during the training of pediatricians.⁷

Although the exact prevalence of GID is unknown, the prevalence of cross-gender behavior in general is considerable. Depending on the study, the numbers range anywhere from 2.6 to 6% for young boys and 5 to 12% for young girls (see section on "Prevalence"). Thus, it is very likely that a pediatrician will encounter children and families with questions about this behavior at some point. Furthermore, even though there are no true incidence studies, there seems to be a trend toward an increased number of referrals in the last several years, especially in adolescents.⁸ Unfortunately there are still few clinics worldwide that offer specialized services for children and adolescents with GID (eg, Toronto, Boston, New York, Washington, London, Amsterdam, Berlin, Frankfurt, Hamburg, and Havana).

The Diagnostic and Statistical Manual for Primary Care (DSM-PC) (American Academy of Pediatrics, 1996) is a useful starting place for the busy primary care practitioner when he or she encounters parents with concerns regarding atypical gender behavior in their child. Such behaviors do not necessarily constitute Gender Identity Disorder, as defined in DSM-IV-TR.⁹ The DSM-PC description for GID includes the following: (1) "the display of a strong and persistent desire to be of the opposite sex" and (2) "persistent discomfort with his or her sex." This desire and discomfort result in cross-dressing and preoccupation with getting rid of the child's own physical sex characteristics. The disturbance is not concurrent with a physical intersex condition (eg, androgenic insensitivity or congenital adrenal hyperplasia).¹⁰ According to the manual, common presentations include "persis-

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tent and pervasive cross-dressing, cross-gender role play and toy play, as well as a preference for cross gender peer play that persist over a period of 3 months.” Other presentations include frequent verbal statements of wanting to become a member of the opposite sex; “the desire to have anatomic attributes of the opposite sex” with strong rejection of “any sex-typical behaviors associated with his or her own sex”; “overt distress that he or she cannot change sex”; and “[being] teased by peer groups.” The onset of most of these behaviors occurs during the preschool years (2-4 years).¹¹

So what can and should a pediatrician do to help a family and child deal with the latter’s atypical gender development? Such concern should be taken seriously in whatever form it presents. Having a child who has persistent and pervasive cross-gender behaviors is usually, but not always, stressful, for the child and the parents. The child will confront varying degrees of curiosity or teasing from peers and adults. He or she is at risk for social isolation and ostracism, violence, and recurrent threats to self-esteem.^{7,12,13} The child’s parents may also face stigmatization and may themselves feel insecure, embarrassed, and conflicted, leading to punitive and critical responses to their child,¹² further compounding potential emotional and behavioral problems. It is vital that such parental concerns be acknowledged and explored further. Hence it is advisable to schedule to meet with all involved parents or guardians to gather more history, evaluate the parents’ concerns, and determine whether an evaluation by a professional with expertise in evaluating and treating these children is indicated. We hope that on finishing this article and going through some of the recommended reading, the pediatrician will be able to evaluate the child and his/her family and—if indicated—refer him/her to a specialist (child psychiatrist, psychologist, or gender specialist). A simple reassurance that gender atypical behavior is normal and that the child “will grow out of it” without further exploration of the history would be a disservice to the family and the child, possibly resulting in delayed referral, evaluation, and professional support. On the other hand, many families have done their own investigations and/or found parent support groups that have arisen in a handful of cities across the country (see section on “Treatment”) and do not feel the need to have input from professionals. After exploration and hearing

the pediatrician’s understanding of what the behavior might signify, this should be respected. Once a decision is made to refer the child, the pediatrician should follow-up with the consultant and be a part of the multidisciplinary team’s planning.

In this article, we give an overview of the current state of knowledge, including prevalence, gender identity development, long-term psychosexual outcome, controversies in the current thinking about etiology, and treatment approaches. We also provide useful resources for the clinician, the family, and the patient on this topic (see Appendix). We give examples of some of the most common presentations of children with GID and recommend possible courses of action for these children and adolescents.

Prevalence and Referral Rates

There are no systematic epidemiological studies documenting the prevalence of childhood GID.¹⁴ In one nonretrospective behavioral genetics study, the prevalence is estimated to be 2.3% in 314 nonreferred twins (ages, 4-17 years).¹⁵ The twins’ parents reported on six DSM-IV GID-related behaviors characterizing the extent to which the children were dissatisfied with their sex and behaved like children of the opposite sex.

Another source on the prevalence of childhood cross-gender behavior is derived from studies using two items from the Child Behavior Checklist (CBCL),¹⁶ a widely used parent-report behavior problem questionnaire^{17,18}: item 5: “behaves like opposite sex”; and item 110: “wishes to be of opposite sex.” Parents rate their child for how true each item is now or within the past 6 months using a Likert scale (0 = not true (as far as you know); 1 = somewhat or sometimes true; 2 = very true or often true).

Based on data from Achenbach and Edelbrock,¹⁹ Zucker and coworkers²⁰ reported overall across ages 4 to 11 years about 3.8% of boys were rated by their mothers as sometimes behaving like the opposite sex (item 5), as compared with 8.3% of girls. One percent of boys and 2.5% of girls wished to be of the opposite sex (item 110). These numbers are somewhat higher than those found in a Dutch normative sample of 1200 four- to 11-year-old boys and girls.²¹ In this sample, parents reported 2.6% of boys and 5% of girls sometimes or frequently behaved like the opposite sex.¹⁷ The above prevalence rates from the Dutch are com-

parable to another more recent large Dutch CBCL study of twins.²² In this study, mothers completed the CBCL for their twins when they were 7 (N ~ 14,000 twins) and 10 years old (N ~ 8500 twins). The prevalence of cross-gender behavior (behaving like or wishing to be the opposite sex) was 3.2% and 5.2% for 7-year-old boys and girls, respectively, decreasing to 2.4% and 3.3% for 10-year-old boys and girls. It is important to note that these are prevalence rates of cross-gender behavior in childhood at large, bearing in mind that such behavior is more common than that of GID and not all such children will fulfill the current criteria for GID. In one study among nonclinical preschool children, 6.6% of boys (N: 7/106) and 4.9% of girls (N: 5/101) displayed moderate levels of cross-gender behavior.²³ The moderate level was defined by preference scores for opposite sex activities at least 1 SD above the mean of the opposite sex, and preference scores for same sex activities at least 1 SD below the mean of their own sex.¹⁷

The estimates of transsexualism also vary widely across studies depending on when and where they were performed. The numbers are usually inferred from the number of transsexuals treated at major specialty clinics or from survey responses by psychiatrists regarding the number of transsexual patients seen within a particular country. The prevalence rates in the Netherlands were estimated at about 1:10,000 males and 1:30,000 females²⁴ and in Singapore about 1:3000 males and 1:8000 females.²⁵

Another approach to inferring estimates of childhood GID comes from epidemiologic data on homosexuality. It has been found retrospectively that homosexual men and women recall engaging in more childhood cross-gender behavior than their heterosexual counterparts.^{17,26} One should remember, however, the subjects in the retrospective literature would not necessarily have met DSM-IV criteria for childhood GID.¹⁸ On the other hand, current prospective evidence does show that for the majority of children, childhood GID is associated with subsequent homosexuality.²⁷⁻³⁰ Contrariwise, some transgender adolescents did not exhibit early GID behavior.

Summary

A fairly significant percentage of cross-gender behavior is found in normative samples of children, more commonly in girls than boys. While the frequency

generally decreases with age, there is still a substantial number of children, boys and girls, at age 7 and 10 exhibiting cross-gender behavior.³¹ At the Toronto clinic a 12% continuance rate for girls (either GID or gender dysphoria)³² was found, while at the Amsterdam clinic 27% of children remained gender dysphoric at follow-up.³³

It is thus extremely likely that a pediatrician will be presented with patients exhibiting such behavior. It is also a noteworthy finding, although it has not been well studied, that a substantial number of both boys and girls will exhibit both cross-gender and same-sexed behavior.³⁴ Further, there is to date no secure way to predict which of the children with GID will go on to be transsexual adolescents, except perhaps those children who show a pattern of extreme cross-sex identification from toddlerhood onward.³⁵

Referral Rates—Boys versus Girls

The above data show that girls exhibit more cross-gender behavior than boys do. This is in contrast with the consistent finding that more boys are referred for gender identity concerns. The Child and Adolescent Gender Identity Clinic in Toronto, Canada, for example, reported a referral ratio of 6.6:1 (N = 275) of boys to girls (ages 3-12 years) evaluated from 1978 to 1995.²⁰

The Canadian findings are consistent with the collaborative findings of the Amsterdam working group.³⁶ In this first cross-national comparative analysis of clinic-referred children with gender identity concerns in Toronto (N = 358) and Utrecht (N = 130), both clinics had a higher percentage of boys than of girls (overall ratio, 4.7:1). This ratio is comparable to the 3.8:1 ratio in a clinic-referred sample (N = 96) in London.³⁶ This difference in sex ratio becomes less pronounced as the children enter adolescence. As summarized in Cohen-Kettenis and Pfäfflin,¹⁷ the sex ratio of adolescents at the three gender clinics ranges from 1.2 to 1.4:1.

In the Cohen-Kettenis and Pfäfflin¹⁷ study, boys were also referred at a younger age than were girls in both clinics. The girls were referred later and had better peer relations than the boys even though the former were more likely to meet the complete DSM criteria for GID. This may possibly relate to the fewer behavioral problems found in girls, or, as Cohen-Kettenis and coworkers³⁷ suggest, these sex differ-

ences in referral patterns can be explained by a greater societal tolerance (from parents, teachers, peers, etc) of cross-gender behavior for girls than for boys.

Cultural Considerations

In addition to social factors partly accounting for the sex referral pattern of GID children, cultural considerations also play a role in the cross-national differences observed. As mentioned above, the Toronto clinic had a larger sex ratio of 5.8:1 compared with that of the Utrecht clinic of 2.9:1.¹⁷ One of the most salient demographic differences between the two clinics noted in the study was the age of referral: the Toronto sample was, on average, about a year younger than the Utrecht sample at referral. The Toronto sample had a substantially higher percentage of referrals between ages 3 and 6 years than did the Utrecht sample (40.5% versus 13%). The differences were even more pronounced for ages 3 to 5 years (22.6% versus 2.3%). The authors explained that this cross-national difference is unlikely to be due to differences in the degree, base rates, and natural history of cross-gender behavior in the two countries, or to financial factors (ie, insurance coverage). It has been speculated that cultural factors probably best account for the cross-national difference in age and the sex ratio of referral in that there appears to be a greater tolerance for cross-gender behavior in the Dutch society than in Canada.^{14,38}

Psychosexual Outcome

Not all children with gender dysphoria or GID become transsexual or have a persistent GID in adolescence or adulthood. Green²⁷ followed 44 behaviorally feminine boys, 85% of whom at one point stated they wanted to be girls, and a control group of boys selected to match the family characteristics but not necessarily attempting to find “masculine” boy matches. In the feminine boy group 34 were not seen in therapy and served as a control group for the 12 that were treated.

Green’s 15-year follow-up of 44 behaviorally feminine boys found that 80% of these boys showed homosexual or bisexual behavior and 75% had a homosexual or bisexual orientation on a fantasy level. Only one boy was gender dysphoric at age 18, whereas none of the control boys reported gender dysphoria in

adulthood. Four percent of the normative control group showed homosexual or bisexual behavior and none of this group reported homosexual fantasies. There were essentially no differences in outcome between the treated and not-treated feminine boys. These outcomes were in general agreement with an early retrospective study of Saghir and Robins³⁹ and a prospective study of Zuger.⁴⁰

Later research showed a lower percentage rate of homosexual outcomes than reported by Green and colleagues. Zucker and Bradley⁴¹ reviewed six follow-up studies of boys with GID, which showed a higher percentage of GID in adulthood (11.9%) and a lower percentage of homosexuality (62.1%). In another follow-up study of 40 boys conducted by the same authors,¹⁸ 20% were classified as gender-dysphoric at follow-up. Regarding sexual orientation in behavior, 22.5% were classified as heterosexual, 27.5% as homosexual or bisexual, and 50% as asexual (not reporting any interpersonal sexual experiences). Regarding sexual orientation, 50% of the boys reported heterosexual fantasies, 42.5% reported bisexual or homosexual fantasies, and 7.5% were classified as asexual.*

Zucker and Bradley¹⁸ reported that 14% of 45 prepubertal children with GID seen at the Child and Adolescent Gender Clinic of the Clarke Institute of Psychiatry in Toronto later requested sex reassignment surgery (SRS) in adolescence. In a follow-up study of eight girls between the ages of 3 and 12, three girls had persistent GID (follow-up at age 17-24). Two of them had a homosexual and one an asexual orientation. None of the other five girls reported a persistent gender dysphoria, but three of them had a homosexual and two had a heterosexual orientation. In a 2008 study from the same clinic Drummond and coworkers⁴² reported on a follow-up of 25 females (mean age at assessment, 8.88 years; at follow-up, 23 years): 60% met full diagnostic criteria when first assessed and 40% were subthreshold. At follow-up 12% continued to have GID or gender dysphoria and 32% were homosexual or bisexual in fantasy. They opine: “If it proves to be the case that cross-sex-typed behavior is indeed less closely linked to a later bisexual or homosexual sexual orientation in girls than it is in boys [...] it would be consistent with recent theoriz-

* Asexuality is a state of having no sexual attraction for either sex.

ing on the greater flexibility of sexual orientation in women.”⁴²

Cohen-Kettenis⁴³ reported on children first seen before puberty (mean age, 9 years) at the Child and Adolescent Psychiatry Department of the University Medical Center Utrecht. Seventy-four of the 129 children were over 12 years of age and potential applicants for sex reassignment (SR). Of these 74, 17 (23%) were intensely gender dysphoric adolescents and applied for SR.

Wallien¹⁴ investigated the psychosexual outcome of 77 gender dysphoric children at the clinic in Amsterdam. At follow-up 10.4 ± 3.4 years later 27% of them still reported that they were gender dysphoric (12 boys, 4 girls), whereas 43% (12 boys, 9 girls) were not. The youths who showed persistent gender dysphoria were more extremely cross-gendered in behavior and feelings, and more likely to fulfill GID criteria in childhood than those who did not report gender dysphoria at follow-up. Within the persistence group nearly all participants reported homosexual or bisexual orientation, whereas in the nonpersistence group all girls and half of the boys reported having a heterosexual orientation. The other half of the boys had a homosexual or bisexual orientation.

Meyenburg⁴⁴ reported that, during 1987 to 2008, 24 children (19 male, 5 female) and 62 adolescents (27 male, 35 female) with GID were treated in the special outpatient clinic for children with GID in Frankfurt. Thirty-nine of these patients were treated with hormones and 15 patients got sex reassignment surgery after age 18. He found that early predictors for hormone treatment are the following: consistent cross-gender identification without prior phase of gender-typical behavior, clear rejection of own gender, consistent wish for SRS, and the examiner’s first impression of the patient as someone belonging to the other gender.

Summary

The studies clearly show that the majority of children with gender dysphoria will not remain gender dysphoric after puberty. Children with extreme gender dysphoria or GID are more likely to have persistent GID than children whose behavior and cross-gender identification is weaker or less persistent. Concerning sexual orientation, there is a strong linkage between GID in childhood and later homosexual orientation or

bisexuality, as most children with GID later become homosexual. It should be noted that there are no reliable predictors of continuing GID or gender dysphoria.

Theories About GID

GID is not a homogenous phenomenon: children vary in type and intensity of cross-genderedness, and outcomes can be very different.⁴⁵ Most workers in the field would agree that GID is caused by a complex interaction of biological, genetic, family, social, and cultural factors. While each year we are getting closer to understanding the relative contributions of these, much is still unknown. During the last decades different theories about the etiology of GID were developed. Due to the small number of patients, empirical work is limited. Some of these studies are based on single cases or small numbers of patients and not tested in broader samples or compared with control groups. In the following section some important theories on the development of GID are presented and discussed.

Psychological Theories

Many psychological theories assume that individual or family psychopathology is causing or supporting a child’s GID or transgender wishes.⁴⁶⁻⁵⁴ In some psychoanalytic papers transsexualism has been described as a narcissistic disorder,⁵⁵ a perversion,⁵⁶ or a defense against separation anxiety.⁵⁶⁻⁵⁸ These clinicians suggest that parental influence plays a major role in solidifying the child’s gender identity. Chiland, a French psychoanalyst, who worked with primarily adult transsexual patients, suggests that core gender and gender identity “is a belief which comes to us from our interpretation of messages communicated by our parents [...] reinforced by events which take place in our bodies and the attitude of other people toward us.”⁵⁹ For her, in the transgender child-to-be these parental messages cause the child to feel secure and loved only by being a member of the opposite sex. Chiland suggests that particular patterns of psychological dynamics in families have a major impact on children from the very beginning through the first 3 years and cause the child’s GID.

In two studies, Coates and colleagues found that between 45% and 78%^{60,61} of mothers had experienced trauma or family dysfunction in the first 3 years of their child's life and were often emotionally unavailable or absent during that time. She reported that these mothers showed a high rate of psychopathology (over 60% with depression or borderline personality disorders).

Other centers (eg, the gender clinic in Toronto) also found increased rates of psychopathology in the mothers but did not find the same kinds of maternal trauma reported by Coates and suggest that her findings reflect the low socioeconomic status of her population.⁶²

Coates theorized that the children respond to this situation (a traumatized mother) with severe separation anxiety and depression. She stated that in many cases "boys attempt to manage their separation anxiety, triggered by the mother's emotional inaccessibility, with a fantasy solution in which they imagine themselves as "being Mummy" rather than "being with Mummy" [...] and by transforming himself into "an" other [...] he imagines will help to restore his mother."⁵⁸ When there is domestic violence in the family by the father, the boy often tries to reassure "the mother, and sometimes the father, that he will not become a stereotypic male, who they unconsciously fear."⁵⁸ For Coates the "parent's selective attunement to the child's cross-gender behavior serves as a powerful reinforcer of cross-gender behavior."⁵⁸

Recent clinical studies did not find a significant increase in child anxiety disorders.⁶³ These results were supported by a large genetic study, which did not find anxiety but did find a higher rate of depression.⁶⁴ Studies based on parent reports (CBCL) show more internalizing problems (anxious and depressed) in children with GID than controls with attention-deficit hyperactivity disorder^{65,66} but similar numbers and types (internalizing and externalizing behaviors) as controls. Cohen-Kettenis and colleagues⁶⁷ studied children who were stressed under experimental conditions and found that they did not react physiologically in a typically anxious way. They concluded that the anxious reaction patterns do not seem to be present on all levels of functioning. Wallien and coworkers report that 69% of their sample of children with GID did not have anxiety disorders and conclude that "a full blown anxiety disorder does not seem to be a necessary condition for the development of GID."⁶⁸ Studies of boys with GID and demographically matched clinical

controls showed on average similar behavioral problems but higher rates compared with same-sex siblings and nonreferred controls. Significantly, Zucker⁶⁹ did not find increased psychopathology in these children before they entered school.

In an early prospective and controlled study, Green suggested that the mother's wish for a daughter causes or reinforces cross-gender behavior and feelings and that the attractive appearance of the child serves as a trigger to the parents. These observations could be proved neither by clinicians with a large clinical base nor by empirical studies.^{41,70,71}

Zucker conceptualized GID as multifactorial in its origins but stressed the importance of going beyond biology in identifying additional factors. His impressions from his clinical experience are "that biological factors may well function in a "predisposing" manner rather than as a 'fixed' influence [...] [and] may well predispose the development of GID but because many youngsters with GID can resolve their unhappiness, this implies a malleability for gender identity differentiation."⁷²

In agreement with Coates'⁷³ theories on cross-gender development, Zucker and Bradley^{41,72} state that the possible biological contributions appear to operate through a child's temperamental traits (eg, sensitiveness, vulnerability to separation or loss, unusual ability to imitate, fearfulness, which would lead to a distaste for rough and tumble play), leading to behavioral traits of the opposite sex. These traits can be fostered through an accident of social relations (eg, a social exposure primarily to children of the opposite sex), which results "in a greater comfort in affiliating with opposite sex peers and in the emulation of cross gender stereotypical interests and activities."⁷² Zucker also notes the possible role of parental needs: "in some mothers particularly, those who have experienced negative life events involving men [...] there is a great deal of anxiety about encouraging such [rough-tumble-play] play in their sons [...] [and] often discourage [sic] any signs of rough play."⁷² These mothers he suggests "confuse fantasy aggression with real aggression," which leads the child into the cross-gender identity. He believes that when the parents allow their child to continue with this cross-gender behavior, GID is being tolerated if not encouraged or reinforced.

According to Zucker and Bradley,⁴¹ most children with GID have an insecure attachment, which has an impact on affect regulation and self-worth. Cross-

gender identification gives the child a more secure, safe, or valued feeling of self and reduces his/her anxiety. Parents are often unavailable or unable to serve as role models the child can identify with and to encourage masculinity in their boys or femininity in their girls. Fears of aggression in the mother and difficulties of the father to connect with the family contribute to the child's dynamic. "Once the child has begun to engage in cross-gender behavior especially in a time when the gender identity has not yet consolidated the child may evolve a cross gender identified self which serves as important defensive function and which may be difficult to relinquish, especially if the factors which contributed to its development have not changed."⁴¹ While researchers in several centers have found increased rates of psychopathology in mothers of children with gender dysphoria,⁷⁴ others have not. Menville⁷⁵ did not find a correlation between the parents' ratings of gender variance or the parents' degree of tolerance of gender variance and the CBCL pathology ratings in their children.

Biological Theories

Many researchers have been searching for biological roots of gender and cross-gender behavior, including brain structure, prenatal hormones, and genetics. The brain research findings involving structural differences are fascinating but more than a cursory review are beyond the scope of this article. Swedish researchers reported important differences in how the brains of heterosexual and homosexual men responded to two compounds suspected of being pheromones—those scent-related chemicals that are key to sexual arousal in animals.⁷⁶ Other findings, such as having a reduced index to middle finger length ratio, being left-handed, and having more biological but not stepbrothers precede the birth of a boy who will later become homosexual, are suggestive and tantalizing but far from having explanatory power.⁷⁷⁻⁸⁰ In studies of transsexuals there is a suggestion that brain structures in male to female transsexuals are more "female"-like.⁸¹ An increased incidence of polycystic ovary syndrome, hyperandrogenemia, and congenital adrenal hyperplasia has been noted in female to male transsexuals (summarized in Hare and coworkers⁸²). A recent report found an association of transsexualism with a repeat length polymorphism of the X-linked androgen receptor and genotype in male to female transsexuals

that appears to cause less effective testosterone signaling. This mechanism, the authors suggest, is typically involved in masculinization of the brain during early development.⁸²

Miller presented a thorough review on neurocognitive and brain findings in variants of gender identity and concluded that "studies find support of the idea of change in brain development but current studies do not yet allow for specificity of the mechanism where these findings contribute to the development of transgenderism."⁸³

Most genetic (twin) studies find strong contributions to variance in GID. The one prospective study of 314 twin children^{4,7,8-12} with clinically significant GID symptoms found a "significant additive genetic component accounting for 62% of the variance and a nonshared environmental component accounting for 38% of the variance."⁸⁴ Knafo and coworkers⁸⁵ point out that studies that focus on homosexuality have generally shown that genetic factors contribute significantly to sexual orientation, and this appears to be stronger for males than for females. They review two studies that found atypical gender behavior to be significantly heritable, with genetics accounting for 37% and 62% of the variance.

In studying gender atypicality in a nonretrospective design in very young twins (3 years old), Knafo and colleagues found "evidence for a genetic influence for boys' femininity and for girls' masculinity, regardless of the criteria used to identify individuals as gender atypical."⁸⁵ They found a large genetic effect and small shared environmental effect for girls; however, for boys the genetic effect was modest and the shared environment effect larger (49-67%). They suggest that the reason for this unusual finding (ie, that the environmental effect is larger at this young age compared with that found in older boys and young girls) "may be the strong emphasis put by many parents on socializing their sons, more than their daughters, to adopt normative masculine behavioral patterns."⁸⁵

Iervolino and coworkers⁸⁶ found in a large twin study ($N = 3990$) that both genetic and shared environmental factors contribute to sex-typical behavior. They found twin-specific environmental effects, which accounted for approximately 22% of the shared environmental variance, to be similar for boys and girls, and additive genetic influences of 57% for girls and 34% for boys.

Van Beijsterveldt and coworkers⁸⁷ in a 2006 study using only the two items of the CBCL relating to

cross-gender behavior “behaves like the opposite sex” and “wishes to be of opposite sex” in 7-year-old twins ($N = 14,000$) and 10 year olds ($N = 8,500$) suggests that 70% of the variance of cross-gender behavior could be explained by genetic factors at both ages and for both sexes.

Although these studies show a genetic contribution to gender atypicality, there is still no direct evidence of a genetic or hormonal effect on GID or transsexual development.⁸⁸

Gender Identity Development

The development of gender identity is a complex process, which takes place in interaction among individual factors, biology, family or social environment, and cognitive or mental development. It has been extensively studied in psychoanalysis as well as in the cognitive and social sciences and the reader is referred to the article in the *Handbook of Child Psychology* 2006⁸⁹ for a review of a vast and complex body of research. There has been greater interest in the past decade in biological factors, and the authors describe similar advances in other approaches, namely, cognitive psychology and socialization theories, but they point out that the three fields have yet to develop an integrative approach to the subject in a relatively unbiased way. This review supports early differences between boys and girls in many areas of development, and a recent paper strongly suggests that some of this difference is present at birth. A study by Connellan and coworkers⁹⁰ found differences in gaze preferences for a mobile with a face in girls and a mechanical mobile in boys (mean age, 36.7 hours).

To quote the conclusion of the encyclopedic *Handbook of Child Psychology* article, which reviews and tries to make sense of literally dozens of studies, by two researchers in the field:

“The extensive database on gender development produces the following portrait: Three year old children master gender stability, show better than chance responding to measures of gender stereotyping of children’s toys and activities, colors and certain trait like characteristics, and state gender-typed play preferences. During the remaining preschool years [age 4 to 5] most indices of gender knowledge and behavior increase dramatically. Many children show complete gender constancy understanding and are able to link traits to gender, [esp. power related and evaluative traits], show in-group positive biases and expect same sex peers to play together. In addition sex differences in a few

personal social characteristics such as aggression and decoding facial expression are seen at this time. This also appears to be an age of heightened gender rigidity.”⁹⁰

They go on to report that “during preschool the two sexes engage in such different activity they are almost like two separate cultures girls with dolls, tea kitchen, dress up, fantasy play, household roles, glamour and romance [...] boys with transportation and construction, toys and fantasy [...] action heroes, aggression, and themes of danger.”⁹⁰

The authors are careful to recognize the limitations of overstating conclusions based on these data. “However for the important question of the direction of effect, that is ie, does identity influence activity and interests or do activities and interest influence identity [the answer] cannot be stated with certainty, nor are they mutually exclusive.”⁹⁰

One intriguing finding concerning the subject at hand is that “children who engage in early gender labeling show increased gender-typed play in the toddler years relative to those who are later labelers. Thus the data support a link between gender labeling/identity and gender-related preferences and behavior, suggesting that this form of basic gender knowledge provides an organizational structure for further gender development.”⁹⁰

Evidence from experiments in gender reassignment, some taking place at birth, should give at least some pause to the belief in how malleable gender is. Although some experiments of nature such as accidental penile ablation, penile agenesis, and bladder exstrophy could be of value in determining how far early interventions in gender transformation can go, these studies are not extensive and often poorly designed.⁹¹ Intersex conditions are rare and only somewhat applicable as the in utero hormonal changes differ from normal prenatal exposure and also more or less often affect the appearance external genitalia. An exception to this might be the studies of congenital adrenal hyperplasia, where girls receive higher than normal androgens in utero. It seems that prenatal increased male hormone levels lead to behavior and cognitive functioning, which are usually attributed to men,⁹²⁻⁹⁴ but how this effect contributes to gender identity and gender development is still poorly understood. Meyer-Bahlburg, who has extensive experience in the area of intersex conditions, discusses the complex factors that must be considered to even begin to

compare the extant studies of sexual reassignment at an early age, and readers are referred to his review for a full description and critique of these studies.⁹⁵ He does however conclude “the findings clearly indicate an increased risk of later patient-initiated gender re-assignment to male after female assignment in infancy or early childhood.”⁹⁵ He argues that these findings are nevertheless incompatible with the notion of full determination of core gender identity by prenatal androgens.

Taken together with genetic studies, and the studies of cross-gender rearing experiments, there is to our mind a suggestion of a substantial contribution for biology in gender identity.

Treatment

During the last decades different treatment approaches have been developed. Some of them sparked major controversies about treatment goals, efficacy, and—especially—ethical issues (eg, whether children should be accepted the way they are or whether the focus should be to change the gender identity). The treatment literature mostly consists of case reports and treatment protocols. No randomized controlled intervention studies have been conducted so far due to the small number of patients, which makes any statement on the general efficacy of a specific treatment approach difficult. The major therapeutic approaches include psychodynamically oriented or psychoanalytic psychotherapy, and behavior or behaviorally oriented psychotherapy. Both report successful outcomes on a variety of cases with specific goals.

Behavior Therapy

Many early treatment approaches were behaviorally oriented. The assumption of these approaches was that GID represents a set of inappropriate responses, which were learned in the early childhood environment and intensified by lack of opportunity to incorporate role appropriate behavior from peers due to social isolation. Hence the aim of behavior therapy was to reduce cross-gender behavior. The majority of these treatments were done by Rekers and Lovaas. Their emphasis of treatment was to correct “pathological sex-role development,” which was thought to provide a basis for the primary

prevention of adult transsexualism or similar “adult sex-role deviation” or homosexuality.⁹⁶⁻⁹⁹ In this approach either the therapist treated the child or the parents were taught by the therapist to reinforce same sex behaviors and to extinguish behaviors of the other sex, by using social reinforcement in the clinic and a token reinforcement procedure at home. Nonsex typical target behaviors (eg, feminine gestures in boys), for which they would be ridiculed, were defined in the clinic by the therapist and explained and illustrated by videotapes to the child. As in the other setting mentioned above, the child received tokens, which he would lose when showing target behavior. The goal of this approach was to minimize target behavior, to strengthen same-sex behavior, and to reduce fear of failure. Older children were taught to use self-monitoring techniques. They could earn points, which they could exchange for rewards or other privileges. The therapist also encouraged the effeminate boy to develop athletic skills and the same-sex parent to spend more time with the child to function as a role model.

Rekers noted that there are some limitations to their approach, as follows: (1) some children reverted to cross-gender behavior when their parents or other adults were absent or when they were in different environments; (2) generalization of treatment experiences and transferring of role appropriate behavior onto other cross-sex behavior was limited.

When the link between GID and later homosexuality became apparent, people started to criticize treatment approaches that aimed at preventing homosexuality and “sexual deviance.” It was argued that homosexuality is not a disorder and that attempts to prevent it were unethical.¹⁰⁰

Psychoanalytic and Psychodynamic Psychotherapy

Psychoanalytic or psychodynamic approaches¹⁰¹⁻¹⁰⁸ pursue different strategies shown in numerous case studies. Most psychoanalytic therapists assume that individual or family psychopathology is causing or supporting the GID. Hence the general therapeutic goal is to resolve the unconscious conflicts to influence the cross-gender behavior and identity, although the nature of the assumed underlying conflicts and the specific treatment aims might

vary. Many psychoanalysts stated that GID develops in the pre-Oedipal phase. They reported particular family constellations associated with GIDs in boys and girls. For boys an extreme maternal closeness and a severely disturbed or emotionally distant or physically absent father who was unable to buffer the distortions in the mother-son relationship were described.^{109,110} The goal of the treatment would be to work through the relationship to the father, to develop a different perception of maleness and men, and to help the child to detach from and to become more independent of the mother. For girls a depressed, emotionally unavailable mother during the early months of the child's life and an absent, nonsupportive father, who encouraged the child to assuage the mother's depression, was found.¹¹¹ Other psychoanalysts have linked the development of GIDs to their inability to mourn a parent or an important attachment figure in early childhood.¹¹² These approaches were helpful in understanding individual family dynamics or conflicts. However, they tended to focus on changing gender identity and were criticized for confusing cause and effect.¹¹³

Treatment Approaches for Parents

Meyer-Bahlburg¹¹⁴ introduced an eclectic treatment approach for parents with 4- to 6-year-old boys, which emphasized the role of peer groups. In weekly treatment sessions with the parents the focus is on the environment of the child. Key components of this approach are as follows: (1) developing a positive relationship with the father; (2) developing positive relationship with male peers; (3) developing gender-typical skills and habits; (4) fitting into the male peer group; and (5) feeling good about being a boy. In the first sessions the therapist deals with the parents' gender ideology to help them recognize what gender-typical behaviors in their child's age group are appropriate and to sensitize them in this area. The therapist trains the parents to respond to cross-gender behavior in using "attention management," giving the child positive attention when he engages in gender neutral or masculine activities. When the child resorts to cross-gender activities, he gets no attention or the parents start distracting the boy from initiating cross-gender behavior.

The therapist helps the parents to find ways of improving the boy's relationship with his father, which often requires a change of the established intrafamilial alignments. The father is encouraged to spend more time with his son and the mother—by stepping back—to allow him to get closer to his father.

Finally the parents have to set as a goal, five play dates per week with other boys, that have to be attained in 6 weeks. When the boy has become comfortable with other boys, the peer dates can be expanded to include extracurricular group activities.

Meyer-Bahlburg reported that this approach has been effective in reducing cross-gender behavior after a short time and that the boys have been able to develop new friendships with other boys. Follow-up, initiated by parents, was primarily by telephone and the duration varied up to several years.

Group Work for Parents and Families

A few group work approaches for parents^{115,116} have been developed either alongside individual treatment of children or as the only intervention for families having a child with GID. The focus of the group work with parents has been mostly to provide support and education, especially about outcomes and other support resources, and by sharing feelings and experiences with other parents to reduce isolation. Talking about feelings would enable the parents to resolve their grief and improve their parenting skills. Di Ceglie and Coates Thümmel¹¹⁷ advanced these approaches. They offered monthly group meetings for parents over a period of 6 months. The aims of the group were to enable parents to provide mutual support, to promote understanding of gender identity problems within the context of the overall development of the child/adolescent, to find appropriate ways of managing the special issues these children encounter, and to enable the parents to bear the uncertainties regarding the final outcome of gender identity development while maximizing the child's potential. Evaluations showed that the parents benefited from the group work and that most of the aims of the group were achieved. Parents' feelings of isolation were reduced and the knowledge of the child's gender identity and overall development was increased. Some parents reported

that it had been helpful to learn about different views and ways of dealing with their children. The authors assumed that benefiting the parents would also have a positive impact on their children, as the parents developed a deeper understanding of their children and the process in which they are involved.

In response to the dearth of programs for preadolescent children in Washington, D.C., Menville and Tuerk¹¹⁸ organized a group open to parents of gender nonconforming boys and girls. Their aim was not to change the children's behavior but to help parents to be supportive of their children's making a normative adjustment. Their belief is that even if societal norms change very slowly, knowledgeable parents who have worked through their grief and shame are more likely to be tolerant and to parent in less critical or punitive ways. A similar group was started at Children's Hospital in Oakland.¹¹⁹ The results have not been systematically assessed but parents' feedback showed that in general they have learned valuable information from the professionals and more specifically from each other. Parents talked about advice they had received from different providers, which spanned the spectrum described in this article. Most found that their instincts told them to support their child's professed identity and felt that the experience of others buttressed this view enough for them to resist pressure to try and change their child. Three children in the Oakland group went on to pass as different from their biological sex and one has now started on puberty-blocking hormones. The transition was aided enormously by one of the group's leaders doing educational outreach at the child's school. The children also appeared relieved, at a monthly nondirected play party at the home of one of the parents, to find others struggling with similar issues.

Group Therapy

Early group therapies were offered to children and adolescents with various aims. Green and Fuller¹²⁰ reported on group treatment of boys who were verbally reinforced for nonfeminine behavior and admonished for feminine behavior. Bates' therapeutic approach focused on encouragement of masculine behavior and general social skills. It was reported that in both approaches cross-gender iden-

tification abated and gender identity was strengthened.

The above approaches differ in whether there is an aim to change the child's behavior or to accept the child and figure out ways to minimize the difficulties the child will undoubtedly face in the world. Most therapeutic approaches are lacking any long-term follow-up. Those that have done such with control groups (eg, Green) have found that the behavior of most children, such as cross-dressing, appears to change with or without treatment. Attempts to stem the development of homosexuality in boys who were effeminate were unsuccessful. Homosexuality was as common an outcome in the treatment group as in the nontreated group. Measures of a long-term positive outcome in group therapy involving changing the child's behavior or accepting it are similarly lacking particularly in the areas of happiness and psychological adjustment. However Green notes that neither "was anyone obviously harmed by treatment."¹²¹

Combined Approaches

In the early 1990s, Di Ceglie and colleagues developed a multimodal treatment approach at the Portman Clinic in London.^{122,123} As the etiology of GID is still unclear and multifactorial, their primary treatment goal is not the change of gender identity but the focus on developmental processes that seem to have been negatively affected in the child. Hence their approach integrates psychological, social, and biological aspects and comprises a variety of services: individual work with children, young people, and parents, family work, supportive groups for parents, and network meetings with other professionals involved with the child or family. During a careful evaluation in a multidisciplinary team, the specific situation and needs of the child and his family are carefully assessed and an individual treatment plan is worked out. The authors stress that recognition and nonjudgmental acceptance of the gender identity problem, which is not a result of the child's conscious choice, is very important for the therapeutic process. Feelings of rejection could result in splitting processes, which could impede the child's coping.

Di Ceglie classifies the management of GID as a process that might involve the following four stag-

es: (1) therapeutic exploration; (2) reversible interventions with hypothalamic blockers as the child enters puberty; (3) partially reversible interventions with cross-gender hormones; and (4) irreversible interventions, which—according to the guidelines of the Royal College of Psychiatrists—should not be performed before adulthood and/or a real-life experience for at least 2 years. It is important to mention that usually after evaluation and before medical interventions a real-life experience in the desired role is required.¹²⁴

Zucker and colleagues have developed multimodal therapeutic interventions, which include the three following major approaches: (1) treatment of GID in the “naturalistic environment”; (2) treatment of the parents; and (3) psychotherapeutic treatment of the child.^{41,125-127} Within the child’s daily environment the therapist works with the parents and supports them in encouraging certain behaviors in or interactions with their child and improving relationships with same-sex peers. The parents are also advised to impose limits on their child’s cross-gender behavior with respect to the context to alter the GID from the “outside in” and to help the child feel more comfortable in the same-gender identification. Individual psychotherapy gives the child the opportunity to explore factors that have contributed to the GID from the “inside out” (eg, cross-gender identity as a fantasy solution or defense of an unconscious conflict). The therapist also launches “dialogs on gender” between the parents and the child. The parents should be open and honest with their child regarding the issues they are working on so that the child is able to understand the parent’s change in their position.

Treatment of the parents focuses on day-to-day interventions and the parents’ or family’s dynamic, which is influencing the child’s gender identity problem. Depending on the complexity of the underlying dynamic, this work can be challenging and long-term.

Psychotherapeutic treatment of the child is offered once or twice a week and open-ended. It aims at exploring and understanding the child’s dynamic and gender identity or behavior. As GID is multifactorial in its origin, Zucker states that it is important to consider predisposing and perpetuating factors, including developmental issues, family dynamics, parental psychopathology, peer relationships, and the child’s dynamic and meanings underlying the wish to become a member of the opposite sex.

Zucker¹²⁷ reports that intervention in early childhood offers the highest chances of psychotherapeutic change and modification of cross-gender identification. In their experience, young children respond quite effectively to psychotherapeutic interventions. However, Zucker recognizes that the changes made through therapy may in fact be due to spontaneous remission, much as in the Green control group. Zucker does recognize that youths approaching puberty or adolescents are more difficult to treat and agrees that for a minority of adolescent patients, hormonal interventions might be the most effective way to resolve gender dysphoria. As described earlier the patients have to be carefully selected to be eligible for hormone treatment or later surgical interventions.

The treatment approach of Cohen-Kettenis and Pfäfflin¹⁷ at the University Medical Center Amsterdam is similar to the approach of the Portman Clinic. In a comprehensive diagnostic phase of at least five sessions with the parents and the child (together and separately) the gender problem and potential other behavioral and emotional problems are assessed. Factors that might have influenced the gender dysphoria as well as the background of the child and family are explored. Different instruments (questionnaires, interviews) are used to gather comprehensive information about gender identity, cross-gender behavior, and feelings of the child. Furthermore young children are observed while playing with toys and clothes.

Depending on the factors negatively influencing the child’s functioning and well-being, the focus could be either on the child, on the family, or on both. The aim of treatment is to strengthen the child to overcome his or her vulnerabilities, remove obstacles to a healthy development, and to reduce stress. GID, like other factors, might be a source of distress and an obstacle to healthy development. In case of a relationship between the gender dysphoria and problematic factors of the child or the family, treatment would first focus on these factors. The parents would be informed that the final outcome cannot be predicted and that the child needs treatment because of the observed problems. In less severe cases where the child and parents function well, supportive counseling is offered to the parents. Depending on the case and specific needs, different therapeutic approaches are offered: behavior therapy, social skills training, parent training, individ-

ual, play, and family therapy, as well as psychodynamically oriented therapy. As the authors find it very important for the development of the child to have social relationships with children of both sexes, one aim of treatment is to encourage children with GID to play with same-sex peers and to develop broader or more neutral interests that they could share with both sexes. The authors would recommend parents setting limits on cross-dressing in case children lose themselves in their fantasies or—if necessary—to protect them from harassment. To help children understand the reason for these limitations, it is important for the parents to explain the rationale (ie, to protect them from potentially hostile environment without denying the child's reality).

As many adolescents come to the clinic with a straightforward wish for hormone therapy or sex reassignment, it is very important to evaluate them carefully, including several sessions with the adolescent and the parents as well as the use of psychometric instruments and interviews. The aim is to get a comprehensive view of the adolescent's psychosexual development and current situation, including sexual experiences, sexual behavior and fantasies, and body image. This information helps the clinician to understand the gender issues and potential underlying or related problems in the context of the individual and family history or dynamic and, together with the patient and his parents, to decide how to proceed. During the diagnostic process, it is important to rule out the possibility that the wish for sex reassignment is part of a severe psychiatric disorder or manifestation of homosexuality. Thus, for example, teens who fear their own homosexual fantasies have been known to see sexual reassignment as a way to become "heterosexual."

In Amsterdam, psychological interventions—such as group, individual, and family therapy, or additional pharmacotherapy—are offered to youngsters whose wish for sex reassignment is not the result of a genuine cross-gender identity but related to other factors. However, clinical experience has shown that psychological interventions for most transgendered adolescents are often not particularly successful and that the problems these adolescents were struggling with were often the consequence of their gender identity rather than the cause. Spack,¹²⁸ an endocrinologist at Harvard, reported that of 70 adolescents he has seen, one-third had suicidal

ideation and 10% had made attempts. He went on to note that not a single one of these children exhibited suicidal ideation after the first consultation in which the approach of hormones was described.

While a number of the therapies so far reviewed which do not attempt to change the child's orientation or belief have been shown to be very helpful, it needs to be emphasized that there is not evidence supporting the idea that gender dysphoria or cross-gender behavior in children or adolescents can be changed by approaches aimed at changing cross gender role-taking behavior.

Hormone Treatment

Treatment of children and adolescents with GID has evolved over the last decade toward earlier treatment with puberty-delaying and cross-sex hormones. During the last several years an increasing number of carefully selected transsexual adolescents have been approved for hormonal treatment before the age of 16 years in specialized gender identity clinics (eg, Amsterdam, Boston, Frankfurt, Gent, Hamburg, Toronto, Washington). Cohen-Kettenis and colleagues, who are pioneers in this field and the first to provide follow-up data, worked out criteria for an early start of gonadotropin-releasing hormone analogs, an approach starting in Tanner stage 2, which delays development of secondary sex characteristics: "(i) a presence of gender dysphoria from early childhood on; (ii) an increase of the gender dysphoria after the first pubertal changes; (iii) an absence of psychiatric comorbidity that interferes with the diagnostic workup or treatment; (iv) adequate psychological and social support during treatment; and (v) a demonstration of knowledge and understanding of the effects of GnRH, cross-sex hormone treatment, surgery, and the social consequences of sex reassignment."¹²⁸ Delaying puberty gives the adolescent time to explore his/her gender identity and wishes for cross-gender hormonal therapy or sex reassignment thoroughly. One major rationale behind this approach of early hormonal intervention is that responsible clinicians cannot escape the burden of potentially causing irreversible biological changes. The consequences of making a wrong decision, either for or against hormonal

treatment or SRS, are great. If biological puberty development continues in a transsexual adolescent, irreversible physical changes occur that surely make reassignment surgery more difficult and may cause lifelong suffering from body dysphoria, as sex reassignment measures will never create a good enough cross-sex body, especially in male transsexuals. As treatment of GID—especially sex reassignment—is a very complex and lengthy process, delaying puberty, living a real-life experience, and having neutral therapists involved every step of the way allow the individual to become more aware of the meaning that the final decision about gender has to him/her and of its lifelong consequences. At the same time enormous suffering and psychosocial consequences (eg, withdrawal, depression, suicidality) caused by gender dysphoria interacting with pubertal changes can be reduced or spared. If the patient later opts for sex reassignment, he or she does not have to live with or change “wrong” secondary sex characteristics, which complicate surgery.

During the past few years Cohen-Kettenis and colleagues¹²⁸⁻¹³³ provided empirical evidence that early hormonal treatment and sex reassignment may be the most effective interventions to resolve gender dysphoria in adolescents. They showed in several studies that carefully selected transsexual adolescents who received puberty-blocking hormones and cross-sex hormones (starting between 16 and 18 years) no longer suffered from gender dysphoria, and that 1 to 5 years after surgery, they were socially and psychologically functioning as well as their peers.

Cohen-Kettenis and coworkers¹³³ also demonstrated how important and useful psychotherapeutic treatment or counseling can be during the process of cross-gender real-life experience, hormonal treatment, and sex reassignment, to deal with body changes, social transformation, or negative reactions from the environment.

The data of the Amsterdam group are promising, although the follow-up to date has only been between 1 and 5 years posttreatment. The results so far have been encouraging with no postsurgical regrets and psychological functioning returned to that found in a matched normative population.

However, hormone treatment before adulthood remains a controversial issue. As shown earlier, a substantial number of GID children later become

homosexual. Hence some professionals argue that early hormone treatment might prevent this development and push the child in a cross-gender direction too early. Others criticize hormone treatment as having a large impact on sexual feelings, both in fantasy and in behavior, and preventing age-appropriate sexual experiences in one’s adolescent biological body and its reflection during the process of evaluation or therapy.¹³⁴ Furthermore the influence of hormone treatment makes it hard or impossible to recognize the underlying developing sexual preferences and gender identity triggered by native hormones.¹³⁴ One could argue that, from the point of view of psychosexual development, in early adolescence, a teenager’s clarification about his or her own orientation in sexual desires and fantasies should precede any fixed identification with a prospective adult gender role. As puberty-delaying hormones are suppressing libidinal impulses, this process of clarification about libidinal object orientation is likely to be inhibited, too. Other arguments against early hormone treatment are that the effects of puberty-delaying hormones on brain development are not yet known, that the children are too young to make a decision of such far-reaching consequences, and that many children with GID have serious comorbidity or live in extremely adverse life circumstances. These objections show how carefully the pros and cons have to be weighed in each case and that decisions can only be made after comprehensive evaluation by a multidisciplinary team. It is very important that the patient is informed about treatment, including its positive and negative effects or risks, as well as the effects of nontreatment. As the evaluation and decision-making are lengthy processes, the patient and his family are afforded time to become aware of the consequences of their decision. Meyenburg suggests an attempt at psychotherapy of at least 1 year should be made and a life test of 1 year should be successfully passed before applying for SRS after the age of 18.^{135,136} Unfortunately given the increasing numbers of children with GID coming to light, there are not enough clinics that can provide the comprehensive approach this condition calls for.

If a severe psychiatric pathology or comorbidity exists, it is important to treat it first and address as well any extremely adverse living circumstances. For successful development the adolescent needs a supportive and understanding environment, which serves as a secure base in turbulent or difficult times.

Case Examples

Paul/Paula

The separated parents of this child came to us with the request for an assessment of gender identity in their 10-year-old son, as well as recommendations for further treatment measures. During the initial visit, it was notable that the father persistently spoke of his son as Paul, while the mother called the child—who clearly gave the impression of a girl—Paula. The child introduced herself as Paula, which is why I will refer to her by this name in the following.

The biographical accounts of the parents revealed that both had grown up in small villages in south Germany under difficult family circumstances, both having experienced physical violence. The father described himself as a no-nonsense type and logical thinker, who enjoyed being alone, whereas the mother was sketched as an emotional “family person.” These opposites had once attracted the parents to each other but also been a source of conflict from the beginning.

A year after the parents met, Paula’s mother became pregnant. Pregnancy and Paula’s early development were described as ordinary. The parents reported that Paula began dressing in girls’ clothes and showing cross-gender behavior at an early age, persistently expressing that she felt herself to be a girl and wanted to be one. After initial separation anxiety, Paula was able to settle into kindergarten and make friends. The other children soon accepted her in her role as a girl and addressed her as Paula.

The conflicts between the parents escalated in the following years, putting immense strain on family life. The parents sharply criticized each other in the parent consultations. The mother described her husband as extremely reproachful, controlling, and demanding and portrayed his repetitive mood swings with verbally aggressive outbursts as unpredictable and distressing for Paula and herself. The child’s father described his wife as deeply disturbed. In the individual consultation, he dwelled on her “pathology” for hours and expounded on how Paula’s mother had supported her cross-dressing and encouraged—and thus induced—her feminine identity. The mother, on the other hand, claimed that she did not force Paula to anything and that she was open to both sexes and merely wished to accommodate Paula’s wishes.

According to the parents, their far-reaching conflicts led to a “marital war,” the ultimate dispute being the cause of Paula’s gender identity problem. Although the parent’s consensual separation reduced the strain on the family situation to a certain extent, the dispute on Paul’s, or respectively, Paula’s, gender identity continued. The father explained that he had tried to find support for Paul because of the severe endangerment he saw in the mother’s detrimental influence on the child’s development. While he wished to see a psychoeducative reinforcement of Paul’s masculine identity through psychotherapeutic treatment, the mother seemed to see no necessity for professional help. Her considerations were inclined toward medical measures to interrupt pubertal development, if the GID were to persist.

The conflicts between the parents were extremely distressing for Paula. She was caught in a conflict of loyalties and anxious to please both of them. This meant, for example, that she would wear trousers when she was with her father and then dress like a girl when she was at her mother’s house. She increasingly suppressed her own needs and feelings, which became obvious in her consultations with us. Paula, who outwardly seemed like a girl, was friendly and shy in the initial contacts. She waited for questions to be asked, and the impression arose that she gave her answers thorough and long consideration, in order not to say anything wrong. Spontaneous narratives or joyful affects were absent, and an overall withdrawn, depressively shaded mood prevailed. Her own wishes and needs were hardly perceptible. It seemed that she unconsciously held them back in favor of orientation to her counterpart, which became particularly obvious in the projective tests, above all in the “Three-Wish-Test,” in which Paula, even when asked questions, could not come up with any ideas.

In her behavior and outer appearance, Paula seemed consistently girl-like. She reported having felt and acted like a girl for as long as she could remember and that she felt accepted as she was by her social environment. Although she knew that she had a penis and that she had been born with the body of a boy, she claimed that this did not really affect her feeling of being and feeling like a girl. She declared that she felt like a girl and wanted to live as one in future. She felt that her mother accepted her as she was, independent of which sex she belonged to. On the other hand, she felt that her father would prefer to have a son, even if

he emphasized to her that his only interest was Paula's happiness, and that her sex and role behavior played a secondary role.

In our outpatient diagnostics, we could not find any signs that the GID had been induced by the mother. The cross-sex role behavior that had persisted for years and the wish to be a girl seemed coherent. We experienced Paula as a depressed child who was inwardly torn and unconsciously used by the extensive conflicts between her parents. Due to these severe conflicts, Paula had not been given a benevolent and supportive environment for her ego and identity development. There was a danger that, in the endeavor to adapt and to protect her true self, Paula's own impulses and feelings, and thus her development, could be obstructed.

In consideration of these far-reaching dynamics, we advised the parents to have Paula treated in an inpatient child and adolescent psychiatric clinic. This measure was to allow Paula respite and space for development away from the dispute between her parents and the question of her gender identity, and further enabling her to deal with her own wishes, feelings, and needs as well as to process the relationship with her parents and the family conflicts. During inpatient treatment, her mother and father would be given opportunity to reflect on their conflicts and their impact on Paula in parent consultations.

During the next sessions with the parents, it eventually became possible to reach a consensus regarding inpatient treatment in the sense of supporting all areas of development according to Paula's needs, rather than setting the primary goal of treating the GID. Since Paula was not experiencing acute psychological strain at this stage, we did not see a reason to enforce clarification of her lived gender identity role. Moreover, it seemed important to alleviate the question of gender identity and its cause, in the sense of a several-year moratorium, and to enable Paula a therapeutic space that was not contaminated by the parents dispute, enabling ego and identity development independent from this escalation.

David

The second case study is about 17-year-old David, formerly Sandee, who underwent psychotherapeutic treatment in our clinic. In the initial interview, he described how he had always felt himself to be

"different." Only in the last few years had he become conscious that he felt as if he were in the wrong body. From his parents, we heard that David had always looked boyish and behaved like a boy. For this reason, they were not particularly surprised when, a year before, he told them that he felt himself to be a boy and wanted to live as one.

David described how he suffered from feeling trapped and "wrong" in his female body. He reported that he was frequently having difficulties concentrating at school and that he was increasingly withdrawing from his social environment, even from close friends. He spent most of his time at home with his mother, by whom, he explained, he felt accepted as he was. It was painful for him to see his friends living as he wished, while he could no longer do many things that he used to enjoy, for example, swimming. Teachers still called him by his female name, which he felt to be a "slap in the face." Social withdrawal, renewed need for his parents, and the collapse of his school performance made him feel like a "loser." Psychological strain was obvious, including suicidal ideation. Conflicts with his father, by whom David had felt neglected and rejected since early childhood, were also evident. In the initial sessions, David saw hormone treatment and sex-reassignment procedures as the only solution to his problems. He spent hours doing his own research on this on the Internet, and his grades in school continued to fall.

Treatment was centered on acknowledging David's feeling of living in the wrong body and offering supportive guidance in his wish for hormone treatment and name change within a multidisciplinary framework. After procurement of two child and adolescent psychiatrists' expert opinions, he was able to begin with cross-sex hormone therapy. With the support of his parents he also applied for a name change. These steps gave him some hope and stabilized him. At the same time, we tried to show David in therapy sessions that, in addition to the initiation of these critical steps, there were further areas that were important for him and his development. David increasingly became conscious that he was risking school failure and that this could be detrimental to his career goals and in becoming independent from his parents. This led to his decision to delay his plans for sex reassignment to have enough energy and time for his higher education entrance exams and consecutive training. His lone-

liness and fear of rejection, in addition to the feeling that his father did not accept him, also became clear. This was followed by his dealing with the relationship with his father and associated fears, a process accompanied by grief and feelings of pain. After a while, David began to renew his contacts with friends and other peers and to venture into his male role. He fell in love with a girl, with whom he was able to start a first relationship. These positive experiences, accompanied by inner turbulence and insecurities, enabled him to explore his sexuality and increase his self-awareness and his self-confidence.

Marty

Marty was born a girl with two XX sex chromosomes; yet ever since her parents flew back from China in 1998 with their 11-month-old adopted baby, their daughter appeared "programmed" to be male. She refused dresses by age two and a half and mastered urinating while standing. She played with trucks and said she wanted to be like the male astronauts, athletes, or politicians she would see on TV. At the beginning of school she would not go to the bathroom all day and refused to change her swimsuit at the YMCA. At 6 her doctors declared her a tomboy. She was dead set on being a boy. So when at 9 the parents decided to respect her wishes, she enrolled in a new school as a boy where she passed without a problem and played aggressive basketball at recess. She was in therapy that took a neutral approach to the gender issue and it appeared that her decision to go as "other" led to a substantial decrease in her anxiety. Because of her age, treatment was put off until the appearance of a second breast bud when she became frantic. The physical changes that were about to occur (she was Tanner stage II) would make transitioning to a boy much more difficult, and the endocrinologists agreed to administering leuprolide Lupron, a gonadotrophin-blocking hormone used in children with premature puberty, and in adults for endometriosis. It is reversible, and being carefully studied for its effects on bone and brain development and future ability to have children.

Marty's parents, both professionals, had wanted a girl when they set out to adopt and thought this was a phase Marty was going through. They saw her light up

when they discussed a friend who was transitioning gender, and she insisted on knowing when it was her turn. After several years of therapy it was clear that she would not rest until she could be a boy.

Hans

A boy named Hans said at 3 that he was a girl. He was a somewhat anxious child, who did not like being questioned and was somewhat embarrassed about his play or dress, and decided on his own to make compromises. He stopped wearing the color pink when he started in kindergarten. He wears dresses at home and at a girlfriend's house unless her older sister, who questions but does not tease him, is there. He went out "trick or treating" on Halloween in his neighborhood as a boy and in a distant neighborhood, where he is not known, as a girl.

After consultation with a psychiatrist he appeared to noticeably relax when permitted to stop some of the rough and tumble activities he was involved with. He has talks with his mother several times a week about being unsure, as he told the psychiatrist that "sometimes I want to be a girl and sometimes I want to be a boy." After a couple of discussions with the psychiatrist, with whom the parents maintain regular e-mail contact, the parents decided to let Hans lead the way. Therapy was recommended as needed with a therapist who takes the lead of the child and is otherwise neutral. The decision to see the therapist is left up to this child. This may be one of the boys with GID who will give that up and will likely but not assuredly be homosexual. The first therapist the parents saw told them that there is a strong likelihood that the boy would become homosexual but that they should seek treatment with someone who can "solidify what maleness is left." It is notable that for many children like Hans their anxieties diminish dramatically when they are able to talk openly about their internal struggles.

Discussion

This overview on research and treatment has shown that GID is a very complex field with individual variations in clinical practice that have potentially far reaching consequences. Although the knowledge

about GID, development of gender identity, and treatments including hormone therapy has increased in recent years, many questions remain unresolved and the impact of the interacting factors and the strength of their contribution are still unknown. Hence no simple answer to those complex questions exists and the opinions about “best” practice in this field widely diverge. The results of carefully evaluating children, treating with early delaying hormones in specific cases, living the real-life experience before starting opposite sex hormones, with careful long-term psychological support or treatment which can be continuous or intermittent, is showing great promise for the outcome of timely sex reassignment surgery. It should also be noted that there are many transgender people who chose only parts of this process (eg, just cross-sex hormones, without surgery or partial surgery) and appear to show a fair degree of satisfaction.

Evaluation

For clinical professionals dealing with children and youth with GID, it is important to have time to conduct a comprehensive evaluation of the child and the family (W.F. Preuss, unpublished data, 2007) to better understand the bio-psycho-social influences. In our experience this evaluation should be done by an interdisciplinary team, which consists of child psychiatrists or psychologists, pediatricians, pediatric endocrinologists, and “gender specialists” (eg, sex therapists and researchers). Due to limited resources, it is often impossible to convene such a panel except in centers specializing in gender issues or to include more professionals, although it would be enriching for example if sociologists or medical ethicists could be consulted as well as part of the multidisciplinary assessment. Multiprofessional diversity reflects and takes into account the complexity of this issue and makes it possible to adopt and examine different—sometimes controversial—perspectives. Such groups can perform valuable functions in direct research and inform their colleagues in the developmental psychology research field of their questions and thoughts. In most cases, this multiprofessional approach can only be provided in highly specialized centers of tertiary care.

Within the framework of comprehensive, multistep diagnostics, patients and their parents should be seen

by the participating professionals. This approach is conducted in interdisciplinary centers in Hamburg, Berlin, and Frankfurt. Before or after approximately six to eight diagnostic consultations with a child and adolescent psychiatrist, the patients should be examined by a pediatrician or pediatric endocrinologist. This is followed by three to five further consultations with the patient, parents, and gender specialists. Afterward, the diagnostic results and any further recommended procedures are discussed in detail among the interdisciplinary gender team. In the case of GID in puberty or adolescence and the patient’s request for hormone therapy, the advantages and disadvantages of hormone treatment and nonhormone treatment have to be discussed and weighed carefully until a consensus is reached.

Depending on the case’s constellation, case management and areas of responsibility are agreed on and allocated within the team. For example, in the case of indications for cross-gender hormone treatment and psychotherapy, the latter would be performed by a child and adolescent psychiatrist or psychotherapist. The gender specialist would write expert opinions and provide guidance for the medical treatment by endocrinologists. Allocation of the diverse responsibilities between psychotherapy, medical treatment, and expert opinions plays an important role in preventing the patient from becoming dependent on the therapist and to enable the patient to express doubts and uncertainties regarding the further procedures. After the team has decided on how to proceed, the process is discussed in depth with the patient and his or her parents.

Treatment[†]

For evaluation and treatment it is most important for the child to feel that his/her gender identity problem is nonjudgmentally accepted by the mental health pro-

[†] Concerning treatment of children and adolescents with gender identity disorder, several guidelines exist which differ in their recommendations. For more information, see the following: “The Standards of Care for Gender Identity Disorders” by the Harry Benjamin International Gender Dysphoria Association; “Caring for Transgender Adolescents in British Columbia: Suggested Guidelines” by de Vries, Cohen-Kettenis, and Delemarre-Van de Waal; “Gender Identity Disorders in Children and Adolescents” by The Royal College of Psychiatrists; “Guidelines for the Treatment of Gender Identity Disorders” by the German Association for Child and Adolescent Psychiatry and Psychotherapy.

fessional. Some children who express their “real” (cross) gender identity can become extremely unhappy and depressed, and not uncommonly, suicidal, when adults try to prevent them being who they perceive themselves to be. For them being transgender is not the cause of their distress but rather it is the lack of acceptance and understanding, which can increase the risk of depression and suicidality.¹³⁷⁻¹⁴⁰

In clinical work the pediatric provider will likely see a wide spectrum of expression of cross-gender behavior or GID and the course can be very different. Patients come with various degrees of personal dissatisfaction with sexual or gender identity, body characteristics, or gender roles. For mental health professionals seeing very young children it is often important to follow the patient and his/her family over time and to track the child’s development. The majority of children outgrow their wish to change sex and gender. Also even “some carefully diagnosed persons spontaneously change their aspirations or [...] others make more comfortable accommodations to their gender identities without medical interventions [...] [or] others give up their wish to follow the triadic sequence [a real-life experience in the desired role, hormones of the desired gender, and surgery to change the genitalia and other sex characteristic] during psychotherapy.”¹⁴¹

The primary goal of treatment should not be to change gender identity or to eliminate cross-gender behavior but to understand the gender issue in its complexity and to help the child attain “personal comfort with the gendered self to maximize overall psychological well-being and self-fulfillment.”¹⁴¹ Depending on the case the approach could be very different. For some individuals it might be important to explore options for coping with gender dysphoria, to deal with relationship difficulties or family conflicts. If a strong unconscious conflict is causing cross-gender identification or gender confusion, it might be indicated to help the child or family to understand the underlying dynamic. Sometimes if the unconscious conflict is solved, the gender dysphoria disappears or decreases. If cross-gender behavior and identification is the result of a traumatic experience, it could be helpful—after stabilizing the child and his/her environment—to understand the traumatic reaction or process and to help the child develop more functional ways of coping. Although conflicts might play a role in contributing to the dynamic and reinforcing the cross-gender identification, other factors might have

stronger impact. In this case gender dysphoria would not disappear, for example, after the unconscious conflict is resolved.

As presented in the case examples above, the path for transsexual adolescents might change and is based on the youth’s own developmental process and life circumstances. Hence, as in child psychotherapy with other patients, it is important to focus on the overall identity development. In this context, the following aspects are of importance:

1. Nonjudgmental acceptance of gender dysphoric feelings and the rejection of the biological sex role;
2. Where necessary, support trials of “coming out” as cross-gender into the social environment and living in the cross-sex gender role;
3. Consideration of all age-dependent developmental tasks beyond gender issues (school, peer relationships, detachment from parents);
4. Activating interest and curiosity in the different developmental areas to improve ego-functioning in all areas of identity development;
5. Encouragement to deal with associated difficulties (eg, difficulties becoming independent/detaching) and to seek social support;
6. Enabling the child or adolescent and the family to tolerate uncertainty in the area of gender identity development;
7. Enabling the capacity for symbol formation and symbolic thinking to help the child become aware of and deal with unconscious conflicts;
8. Encouragement to deal with and verbalize all kinds of experiences with bodily aspects of psychosexual maturation (eg, talk with the therapist about sexual arousal and fantasies, physical changes, body image, etc).

Concerning hormone treatment, the Amsterdam group provided increasing evidence that early hormonal treatment in adolescent transsexuals (ie, before puberty has been completed) is associated with a remarkably low incidence of psychopathology in adulthood. Available data suggest the assumption that in cases with persistent GID and extreme gender dysphoria, the beginning of sex reassignment procedures before adulthood, including hormonal treatment in middle adolescence, is likely to result in favorable post-reassignment long-term functioning. However, careful diagnosis made by a specialized gender team and based on stringent criteria is a precondition for any

early reassignment procedure.^{130,142} Based on these findings, clinical practice in some countries has turned toward more openness to hormonal treatment in a subgroup of adolescents diagnosed as transsexual. Research about the physical and cognitive impact of hormone treatment is needed and is underway in several centers.

A rising number of child mental health professionals find an “increasing evidence that GID is not a matter of choice or caused (solely) by environmental factors, such as poor parenting. We are still far from understanding which factors are necessary or sufficient for an atypical gender identity development. Biological factors do seem to play a role and may contribute to persistent GID.”¹⁴³ Other professionals would even go further and—against the background of their long experience in working with gender variant or children with GID—suggest that those children have strong constitutional predispositions and “that parents have little or no influence on the child’s core feelings that define him or her as gender typical or gender variant. Such core feelings appear immutable.”¹⁴⁴ For them it is important to support the child’s individual development and not to change him/her as research showed that the majority of children and regardless of the intervention will develop as either homo-, bi-, or transsexual. They suggest that GID be removed from DSM-IV-TR Diagnostic Statistic Manual or International Classification of Diseases (ICD)-10 to prevent stigmatization and pathologization.¹⁴⁵

Improvement of Services and Support for Children and Families

Many children and their families have to travel great distances to see a child mental health specialist who has experience with GID and can do an evaluation. Talking to someone who knows about the difficulties and struggles those children and families might have to deal with, and who accepts the child as he/she is, is often experienced as a great relief. For many patients and families the specialist is the first individual with whom they talk about their feelings and situation, their suffering, and their wishes. Some children and families feel better when they learn that they are not alone, that there are other people in the same situation. They often feel

isolated, having feared or experienced negative reactions from the environment. For both patients and families it is helpful to get information about GID, the range of gender variations and sexuality, and treatment options. It helps them to become aware of or to better understand their feelings. Sometimes adolescents discover over the course of the evaluation or treatment that they are homosexual or their fear of being homosexual has led them to seek SRS as a way of denying this possibility.

As few services for children with GID currently exist and many professionals are not familiar with this condition, it is important to raise professionals’ medical and psychological competence and to educate family members and schools, starting in the very early grades, and employers about GID. The latter is increasingly offered by health professionals with great success.¹⁴⁶ *Brill’s Handbook for Families and Professionals*¹¹⁹ is a valuable resource for educating children, teachers, and administrators in schools (see Appendix). It is important that people become aware of the normal range of gender variations and create a more understanding and supportive environment for children with GID or transgender youth. With teacher and school staff support, discrimination, harassment, and bullying in schools about gender issues could be ameliorated, although progress even in the general area of bullying has been unfortunately slow. If children are harassed in school, it might sometimes be necessary to limit cross-dressing or cross-gender behavior in the social environment to protect the child.

Many children and their families do not require frequent individual professional support but benefit from group work or even parent-run support groups.

Cultural Aspects

As gender behavior is determined by different biological and psychosocial factors, it is important to critically reflect on our assumptions and cultural images. In our society thinking about gender is mostly dichotomous (male-female). This starts with one of the most common questions after a child is born (“Is it a boy or a girl?”) and is reflected in permanent attributions of gender in everyday life. If our rigid dichotomous thinking about gender could be lessened making room for more options, the benefits would reach far

beyond the relief of the suffering of our transgendered young to all of us.¹⁴⁷⁻¹⁴⁹

Outlook

As this article has shown, it is very important that child health professionals work together in finding ways to improve services and support for children with GID. More research (eg, multicenter studies) is needed to better understand GID in its multifactorial origins. As the developmental outcome of children with GID varies broadly with only a small number becoming transsexual, the diagnostic criteria of GID in childhood alone are not sufficient for prognostic predictions. As professionals we face the dilemma of the risk of causing harm if we act on a false prognostic assessment and a similar risk if we do not act to relieve the suffering of transgender children and transsexual adolescents who continue to find themselves in the wrong body. Multicenter studies involving several disciplines have the potential to minimize some of the biases that exist in the field currently and to expand our knowledge on prognostic criteria for the developmental course and treatment of GID in childhood and adolescence. There is no question that such study will expand our understanding not only of these children but what it means to be human.

Appendix

Glossary

Gender Role. Contrary to gender-typical behavior, which refers to observable behavior pattern, gender role describes pattern of masculine or feminine behavior of an individual that is defined by a particular culture and that is largely determined by a child's socialization. Gender role covers certain abilities, interests, attitudes, and behavior patterns, which are attributed to the respective sex by society. Ideas of appropriate behavior according to gender vary among cultures and change over time, although some aspects receive more widespread attention than others. Gender role also often varies according to the social group to which a person belongs or the subculture with which he or she identifies cultural identity.

Gender Identity. Gender identity is a person's subjective sense of identification with either the male or the female sex (or between) as manifested in appearance, behavior, and other aspects of a person's life. Gender identity is affected by genetic, prenatal hormonal, postnatal social, and postpubertal hormonal determinants.

Gender Role Identity. Gender role identity¹⁴⁸ is the public manifestation of gender identity expressed in a certain role behavior. It covers everything a person is doing or saying, to show how he/she feels part of one or the other sex.

Sexual Orientation. Sexual orientation refers to the direction of an individual's sexuality and by whom the person is sexually stimulated. The most commonly used categories of sexual orientation are heterosexuality (emotional, romantic, and/or sexual attractions to members of the opposite sex), homosexuality (emotional, romantic, and/or sexual attractions to members of the same sex), and bisexuality (emotional, romantic, and/or sexual attractions to members of either sex).

Sexual Identity. Sexual identity describes how a person identifies related to their sexual orientation. The subjective experience of being heterosexual, homosexual, or bisexual is determined by fantasies of what could be sexually exciting. It is developed in late adolescent or adulthood. Usually, sexual orientation and sexual identity are in agreement.

Transvestism. The wearing of clothes of the opposite sex for part of the individual's existence to enjoy the temporary experience of membership of the opposite sex, but without any desire for a more permanent sex change or associated surgical reassignment.

Gender Diversity Work in Elementary Schools

Gender Spectrum has been doing this groundbreaking work in numerous schools in the United States ranging from kindergarten through 12th grade. The impetus for gender diversity work in any given school is likely because of a single transgender or gender-nonconforming child within the student body. Gender Spectrum's proven effective approach is to educate the school community—the administration, faculty and staff, parents, students of all ages—thereby changing the entire school climate rather than expecting a transgender student to stifle, alter, or hide their identity.

Brill and Pepper¹⁵⁰ found that the components necessary to create the most effective gender training program include the following:

- Modification of school diversity policies and handbooks
- Initial teacher and staff training
- Secondary teacher/staff training
- Parent education component
- Classroom education to include child development stages and age-appropriateness:

K-2nd grade

3rd-5th grade

6th-8th grades

9th-12 grades

- Follow-up staff training and incident-specific consultation
- Sex education and other curriculum modifications

Educational goals and outcomes include the following:

- Supportive environment created for children to undergo a social gender transition (the gender transition is a social transition solely, rather than a physical one before puberty)
- Inclusive and compassionate environment created and/or sustained for all students with diverse families or identities
- Teaching of new and relevant vocabulary for children and teachers to use that affirms gender variance as normal
- Curriculum modifications for day-to-day inclusion of gender diversity
- Adherence to antibullying rules and meeting legal requirements regarding safe learning environments
- Simple, clear age-appropriate language used in discussing gender identity and expression

Questionnaires for Professionals

We would recommend the preschool activities by Golombok and Rust¹⁵⁰ which consists of 24 items for parents divided in three categories ([1] toys, [2] activities, [3] characteristics) scored on a Likert scale from never to very often.

Web Resources

The World Professional Association for Transgender Health (The Harry Benjamin International Gender Dysphoria Association's Standards of Care for GID). http://www.wpath.org/publications_standards.cfm

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